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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,185	01/22/2004	Youn Sub Noh	NOHY3001/EM	4775
23364	7590	05/20/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			NGUYEN, KHAI M	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

**Office Action Summary****Application No.**

10/762,185

**Applicant(s)**

NOH ET AL.

**Examiner**

Khai M. Nguyen

**Art Unit**

2819

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1-22-2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The application has not been checked to the extent necessary to determine the presence of all possible typographical and grammatical errors. However, Applicant's cooperation is requested in correcting any errors of which he/she may become aware in the application.

### *Priority*

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

a. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Luo (US 6,486,739 B1).

Regarding claim 1, Luo discloses an amplifier, the amplifier comprising: an amplifier circuit (Q1) for amplifying an input signal (input) to generate an output signal

Art Unit: 2819

(output); and an adaptive bias circuit (2) for receiving the input signal to provide a driving current (the current that passes transistors Q3-Q2) to the amplifier circuit (Q1) for controlling a quiescent current of the amplifier circuit (column 3, lines 1-24).

Regarding claim 2, Luo discloses the amplifier of claim 1, including a driving transistor (Q3) for receiving a driving transistor input current (from the IBIAS current source) to provide the driving current to the amplifier circuit (Q1 – “Q3 charges Q1 through the resistor R1 at a charging rate” - column 2, lines 54-55); and a drawing transistor (Q2) for drawing a bypass current (the current through the collector of Q3) from the driving transistor input current to reduce (or to discharge – column 2, lines 55-60) the driving current in response to the input signal (input).

b. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Liwinski (US 6,515,546 B2).

Regarding claim 1, Linwinski discloses an amplifier (see and compare Fig. 2 of the reference with Fig. 1 of this application – they both have the same structure), the amplifier comprising: an amplifier circuit (Q2) for amplifying an input signal (RFin) to generate an output signal (RFout); and an adaptive bias circuit (BIAS CIRCUIT) for receiving the input signal to provide a driving current (the current that supplied to the base of the Q2 transistor) to the amplifier circuit (Q2) for controlling a quiescent current of the amplifier circuit (column 2, lines 5-9).

Regarding claim 2, Linwinski discloses the amplifier of claim 1, including a driving transistor (Q3) for receiving a driving transistor input current (the current supplied to the base of transistor Q3 as compared to the current IB3 of Fig. 1) to provide the driving

Art Unit: 2819

current to the amplifier circuit (Q2); and a drawing transistor (Q4/Q5 of the feedback circuit) for drawing a bypass current (the current through the collectors of these transistors Q4/Q5) from the driving transistor input current to reduce the driving current in response to the input signal (RFin).

Regarding claim 3, Linwinski discloses the quiescent current is reduced when the driving current is reduced, and the bypass current increases when the input signal (RFin) is reduced (see Fig. 2, and column 4, lines 47-65).

Regarding claim 4, Linwinski discloses the bias circuit of the above claims including an adjusting transistor (Q1 – because the input power of this transistor can be varied by adjusting the resistor R2 – column 1, lines 47-50) for receiving the input signal (RFin) to adjust a control voltage in response to the input signal (RFin), wherein the drawing transistor(s) (Q4/Q5) draws the bypass current (collector-emitter current) in response to the control voltage.

Regarding claim 5, Linwinski discloses the current bypass increases when the control voltage increases (column 4, lines 47-65, for example).

#### ***Prior Art***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclose (see references recited on the PTO-892 Form attached herewith).

#### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571-272-1809. The examiner can normally be reached on 9:00 - 5:30 Monday-Friday.

Art Unit: 2819

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KN  
May 12, 2005

  
PEGUY JEANPIERRE  
PRIMARY EXAMINER